

# MILITARY SPECIFICATION SHEET

FITTINGS, HYDRAULIC TUBE, FLARED 37 DEGREE AND FLARELESS, STEEL;  
 ADAPTER, STRAIGHT, PIPE TO TUBE, MALE PIPE END, 37 DEGREE FLARED

This specification is approved for use by all Departments and  
 Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this  
 specification sheet and the issue of the following specification listed in that  
 issue of the Department of Defense Index of Specifications and Standards (DoDISS)  
 specified in the solicitation: MIL-F-18866.

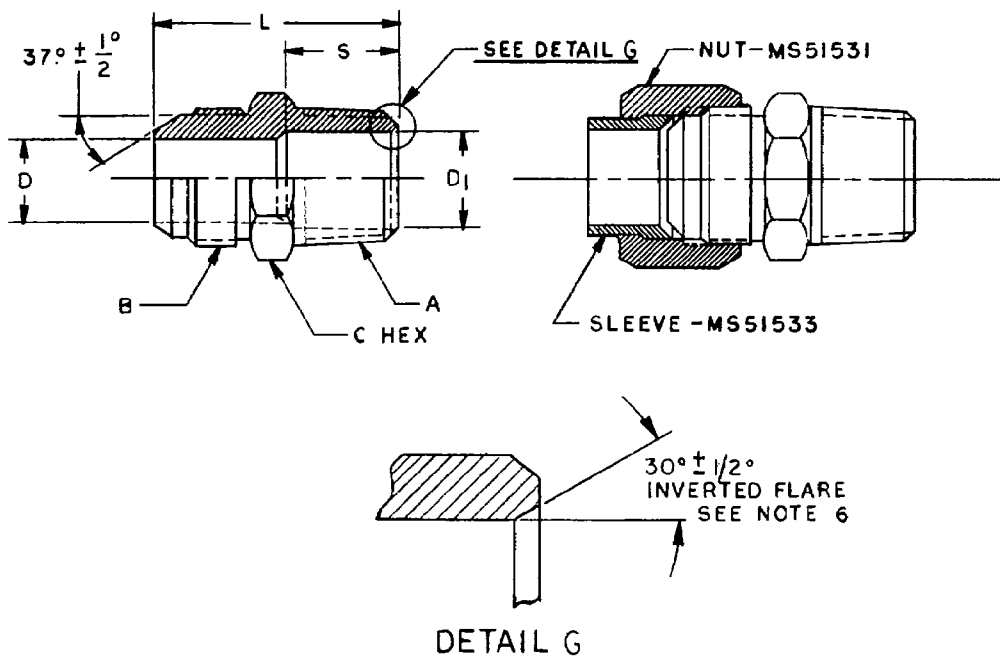


FIGURE 1. Adapter, Pipe to Tube, Male Pipe End, Flared.

© Denotes change

TABLE I. Dimensional data.

DASH NUMBER		TUBE C.D. NOM	A PIPE THREAD NPTF	B STRAIGHT THREAD	C HEX FLAT NOM	D		D <sub>1</sub> DRILL	L +/- .020	S MAX
BODY	ASSY					BASIC	TOLERANCE			
B2	A2	1/8	1/8	.3125-24 UNF-2A	7/16	.062	+/- .003	.188	1.110	.490
B3	A3	3/16	1/8	.3750-24 UNF-2A	7/16	.125		.188	1.140	.490
B4	A4	1/4	1/8	.4375-20 UNF-2A	1/2	.172		.188	1.220	.490
*B4-4	*A4-4	1/4	1/4	.4375-20 UNF-2A	9/16	.172		.281	1.420	.690
B5	A5	5/16	1/8	.5000-20 UNF-2A	9/16	.234	+/- .004	.188	1.220	.640
B5-4	A5-4	5/16	1/4	.5000-20 UNF-2A	9/16	.234		.281	1.420	.690
*B6-2	*A6-2	3/8	1/8	.5625-18 UNF-2A	5/8	.297		.188	1.240	.480
B6	A6	3/8	1/4	.5625-18 UNF-2A	5/8	.297		.281	1.430	.670
*B6-6	*A6-6	3/8	3/8	.5625-18 UNF-2A	3/4	.297		.406	1.430	.580
*B6-8	*A6-8	3/8	1/2	.5625-18 UNF-2A	7/8	.297		.531	1.690	.710
*B8-4	*A8-4	1/2	1/4	.7500-16 UNF-2A	13/16	.391		.281	1.530	.680
B8	A8	1/2	3/8	.7500-16 UNF-2A	13/16	.391		.406	1.530	.680
*B8-8	*A8-8	1/2	1/2	.7500-16 UNF-2A	7/8	.391	+/- .005	.531	1.790	.810
*B8-12	*A8-12	1/2	3/4	.7500-16 UNF-2A	1-1/8	.391		.719	1.850	.730
*B10-6	*A10-6	5/8	3/8	.8750-14 UNF-2A	15/16	.484		.406	1.700	.720
B10	A10	5/8	1/2	.8750-14 UNF-2A	15/16	.484		.531	1.890	.910
*B12-8	*A12-8	3/4	1/2	1.0625-12 UN-2A	1-1/8	.609	+/- .005	.531	2.060	.940
B12	A12	3/4	3/4	1.0625-12 UN-2A	1-1/8	.609		.719	2.060	.940
B14	A14	7/8	3/4	1.1875-12 UN-2A	1-1/4	.718		.719	2.09	---
*B16-12	*A16-12	1	3/4	1.3125-12 UN-2A	1-3/8	.844		.719	2.110	.940
B16	A16	1	1	1.3125-12 UN-2A	1-3/8	.844	+/- .010/- .005	.938	2.300	1.130
B20	A20	1-1/4	1-1/4	1.6250-12 UN-2A	1-11/16	1.078		1.250	2.450	1.200
B24	A24	1-1/2	1-1/2	1.8750-12 UN-2A	2	1.312		1.500	2.680	1.270
B32	A32	2	2	2.5000-12 UN-2A	2-5/8	1.781		1.938	3.110	1.370

\*Not recommended for new design

#### REQUIREMENTS:

- MATERIAL:** Steel, carbon in accordance with procurement specification.  
Steel, corrosion-resisting in accordance with procurement specification.
- PROTECTIVE COATING:** Cadmium plated in accordance with procurement specification. Zinc plated in accordance with procurement specification. Phosphate coated in accordance with procurement specification. Passivation treatment in accordance with procurement specification.
- THREADS:** Threads shall be in accordance with Screw-Thread Standards for Federal Services, FED-STD-H28.

4. PART NUMBER: The MS part number consists of the MS number plus the dash number.
  - a. For body only, cadmium plated, use the MS number, plus the body dash number. Example: MS51500B2.
  - b. For complete assembly (with nut and sleeve), cadmium plated, use the MS number, plus the assembly dash number. Example: MS51500A2.
  - c. For zinc coating add (Z) to the dash number. Example: MS51500B2Z or MS51500A2Z.
  - d. For phosphate coating add (P) to the dash number. Example: MS51500B2P or MS51500A2P.
  - e. For corrosion-resisting steel add (S) to the dash number. Example: MS51500B2S or MS51500BA2S.
5. At manufacturer's option, through passages may conform with the smaller diameter specified or the appropriate end may be counterbored to the larger diameter for depth S.
- © 6. When specified in the solicitation, provide a 30-degree inverted flare seating surface on the inside edge of the "A" pipe thread end.
7. DIMENSIONS AND TOLERANCES: Dimensions and tolerances not shown shall be in accordance with the SAE standards for 37-degree flared fittings (SAE J514).
8. After 17 January 1979 bodies will be used for production only and SHALL NOT be stocked for maintenance. Existing stock of bodies should be used until depleted.
9. The illustration is for identification purposes only and is not intended to restrict designs or shapes not dimensioned.
10. In the event of a conflict between the text of this Military Specification Sheet and the reference cited herein, the text of this Military Specification Sheet shall take precedence.

11. Referenced Government (or non-Government) documents of the issue listed in that issue of the Department of Defense Index of Specifications and Standards (DoDISS) specified in the solicitation form a part of this Military Specification Sheet to the extent specified herein.

## CUSTODIAN:

AIR FORCE - 99

③ ARMY - AR  
NAVY - OS

## PREPARING ACTIVITY:

ARMY - AR

## REVIEW ACTIVITIES:

③ AIR FORCE - 82  
ARMY - ER, ME  
DLA-CS

## AGENT:

DLA-CS

## USER ACTIVITIES:

ARMY - AT  
NAVY - MC, YD

(PROJECT 4730-0908)